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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,653	05/20/2004	Joseph Tucker	78.1182	3652
26932	7590	09/22/2005		
JEFFREY E. DALY GRANT PRIDECO, L.P. 400 N. SAM HOUSTON PARKWAY EAST SUITE 900 HOUSTON, TX 77060			EXAMINER GAY, JENNIFER HAWKINS	
			ART UNIT 3672	PAPER NUMBER
				DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/709,653	TUCKER ET AL.
	Examiner	Art Unit
	Jennifer H. Gay	3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-44 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-44 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 8/26/05.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_.

## DETAILED ACTION

### ***Specification***

1. The abstract of the disclosure is objected to because the abstract includes the implied phrases "The present invention is generally directed to", "In one illustrative embodiment", and "of the present invention". Correction is required. See MPEP § 608.01(b).
2. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

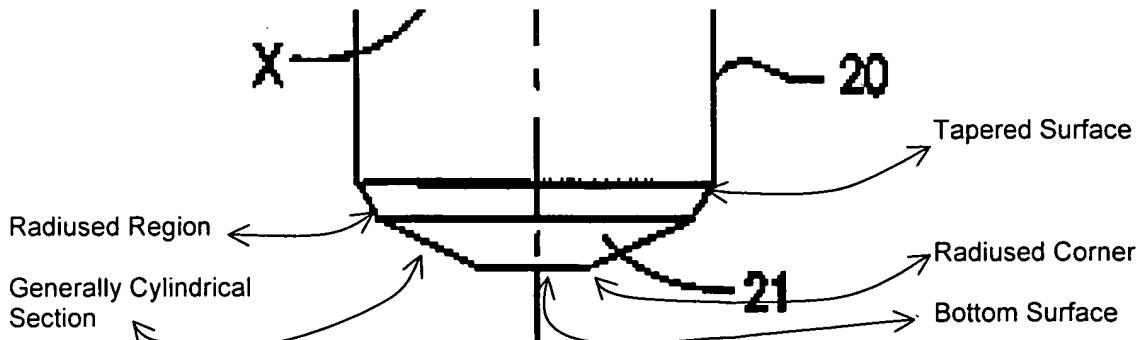
### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8 and 12-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer et al. (US 5,881,828).



*Regarding claims 1, 13, 19:* Fischer et al. discloses a rolling cutter insert that includes the following features:

- A generally cylindrical body, cutting surface, and bottom surface (Figure 1).
- A tapered surface adjacent the body (see above Figure).
- A generally cylindrical section positioned between the bottom surface and the tapered surface.

*Regarding claims 2, 13, 19, 25, 26, 29, 36, 37, 39:* The insert includes a radiused corner region adjacent the bottom surface where the corner region is between the bottom surface and the cylindrical section.

*Regarding claims 3, 27, 38:* The cylindrical section is adjacent the corner region.

*Regarding claims 4, 14, 20, 29, 40:* The body has a diameter greater than that of the cylindrical section.

*Regarding claims 5, 15, 19, 30, 41:* The insert includes a radiused region positioned between the tapered surface and the cylindrical section

*Regarding claims 6, 13, 19, 31, 42:* The corner region defines a transition between the bottom and the cylindrical section.

*Regarding claims 7, 16, 19, 32, 43:* The radiused region defines a transition between the cylindrical section and the tapered surface.

*Regarding claims 8, 17, 21, 33, 44:* The tapered surface appears to form an angle of approximately 15 degrees relative to the longitudinal axis of the body.

*Regarding claims 12, 18, 22:* The insert is described as being used with a variety of drill bits thus the examiner takes Official Notice that the disclosed insert can be used with a roller cutter drill bit.

*Regarding claims 23, 34:* Fischer et al. discloses a rolling cutter insert that includes the following features:

- A generally cylindrical body, cutting surface, and bottom surface (Figure 1).
- A tapered surface adjacent the body (see above Figure).

- A region of material positioned between the bottom surface and the tapered surface that is positioned outside of a volume defined by an intersection of a linear extension of the tapered surface and the bottom.

*Regarding claims 24, 35:* A generally cylindrical section positioned between the bottom surface and the tapered surface where at least a portion of the cylindrical section defines at least a part of the region.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al.

Fischer et al. discloses all of the limitations of the above claims except for the radiused corner region having a radius of approximately 0.020 inches, the radiused region having a radius of approximately 0.20 inches, and the generally cylindrical section having an axial length of approximately 0.020 inches.

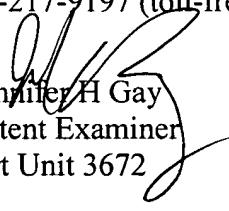
However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the cutter insert of Fischer et al. with the above dimensions, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer H. Gay  
Patent Examiner  
Art Unit 3672

JHG  
September 16, 2005  
